

Commissioner Robert Pernell
Commissioner Arthur Rosenfeld
California Energy Commission
1516 9th Street
Sacramento, CA 95814

September 4, 2003

Re: Elimination of ENV-3 and Form 3 in the 2005 Standards

Dear Commissioners Pernell & Rosenfeld,

First, CABEC would like to express its approval of the technical changes contained in the 45-Day Standards language which increases the influence of framing effects on the overall heat flow through framed construction assemblies (e.g., roofs, walls and floors). We believe that Staff and Commission consultants have done a good job in the research and development which supports these changes. However, we strongly object to the implementation of these new values only within lookup tables as listed in the Joint ACM Appendices, Appendix IV. In our view, the Commission has very unwisely eliminated an important compliance option that has existed in the Standards since 1978. This option allows a permit applicant to document an unusual construction assembly on the nonresidential ENV-3 form or residential Form 3 in order to provide a more accurate U-Factor and Heat Capacity which are used in the energy compliance analysis.

Our major substantive concerns with regard to this proposed major change in the implementation of the Standards are:

- (1) The proposed tables do not and cannot cover every construction assembly that may be used in the real world; and when there is no applicable assembly listed in the tables, a code compliance and enforcement dispute will likely arise, with no clear resolution to the issue available to the parties involved.
- (2) Unnecessary disputes will waste time and money, and undermine the usability and credibility of the Standards for all parties concerned: building owners, building designers, documentation authors and building officials.
- (3) The normal or routine use of the proposed tables will entail more work and attention by the parties involved to make sure that the correct value is being used even for a standard construction assembly listed in the table; and many more errors will be made than occurs within the current system.

(over)

Our major procedural concerns are as follows:

- (4) The elimination of the ENV-3 and Form 3 were never outlined or highlighted by the Commission in the changes it listed to the Standards a year ago or six months ago. It simply appeared in the 45-Day language.
- (5) What is the problem that this entirely new compliance paradigm is purported to solve? In an August 25th conference call with four knowledgeable CABEC members, Staff mentioned a relatively few instances where individuals purportedly manipulated the current forms. Within a few minutes, within the conference call, CABEC members quickly developed a workable proposal to solve that problem without gutting the existing procedures. The Commission's consultant has proposed adding and modifying the language in Appendix IV so that an ACM-generated ENV-3 or Form 3 for custom construction assemblies would be allowed. However, we have yet to see that proposed language. .
- (6) The Commission has at its disposal an organization, CABEC, whose members work with the Standards intensively on a daily basis; members who, collectively, produce tens of thousands of Title 24 reports for the full range of building projects each year within California. Yet when confronted with an implementation problem to solve, the Commission Staff and consultant did not communicate with anyone from CABEC.

Notwithstanding Staff's stated good intentions, the 45-Day language will, in fact, throw the baby out with the bathwater to the detriment of the Standards. If a viable and usable ENV-3 and Form 3 option is not maintained within Title 24, the Standards will be undermined by switching to a new compliance paradigm that has not been tested, and for which there will be no safety net when the new system fails.

We strongly urge the Commission to work closely with CABEC and the ACM vendors before the 15-Day language is released to maintain the critically important flexibility of construction assemblies that has been a core component to the Standards since their inception 25 years ago.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael D. Gabel". The signature is fluid and cursive, with a large, stylized "M" and "G".

Michael Gabel & Gary Farber
CABEC Nonresidential Standards Co-Chairs